

Environmental Impact Assessment Report (EIAR)

Volume 6 of 6: Appendices

(Appendix 8.12) Parteen Basin Mollusc Survey Report

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Mollusc survey at site of proposed Raw Water Intake and Pumping Station at Parteen Basin, Co. Tipperary

For Tobin Consulting Engineers

Completed by Adam Mantell (Arctia Ecology), 42 Kernaghan Park, Annahilt BT26 6DF



Figure 1 - *Zenobiella subrufescens*



Figure 2 - *Vertigo Lilljeborgi*



Figure 3 - Typical wooded shoreline habitat at the proposed Raw Water Intake and Pumping Station

1. Summary and key findings from the survey

1. We were engaged by Tobin Consulting Engineers to undertake invertebrate surveys at the proposed site of a Raw Water Intake and Pumping Station (RWI&PS) near Parteen Weir in County Tipperary. The RWI&PS site is wooded with a mix of deciduous trees that have been underplanted with conifers. The first survey in 2020 identified a number of notable species and was followed up by a second survey in 2021.
2. The notable species found in 2020 are listed and described in Section 6. Two snail species with conservation designations that were considered to be most at risk were selected for additional survey work in 2021. They were:
 - *Vertigo lilljeborgi* is a rare whorl snail which was assessed in the Irish red list as Vulnerable due to distributional decline (Byrne, 2009). A single specimen was found adjacent to the shore, an unexpected find for this man-made habitat, and indeed this part of Ireland. The snail is normally found in the west of Ireland along pristine limestone lake shores.
 - The second find were several immature specimens of an unidentified snail that appeared likely to be a European species, *Monachoides incarnatus*, not hitherto recorded from either Ireland or Britain.
3. Further searching of habitat similar to the RWI&PS site around the shores of the Parteen Basin was completed during 2021, including the original site, but yielded no additional specimens of either snail.
4. In terms of the development, similar waterside habitat to the RWI&PS is reasonably widespread around the shores of Parteen Basin and also Lough Derg. *V. Lilljeborgi* is a species that is well known among entomologists for its cryptic lifestyle in strandline flotsam and low vegetation. It is difficult to find even in known established locations with optimal habitat. While the 2021 survey didn't find any additional specimens, it seems highly unlikely that the snail is only present along approximately 200 metres of shoreline at the RWI&PS site, and consequently we do not believe that the development is likely to pose a significant threat to the ongoing survival of the snail around the Parteen Basin. We have however put forward recommendations in Section 6 to avoid/reduce the impact of the proposed development by collecting and translocating any specimens, prior to groundwork commencing.
5. Following the 2021 survey we now believe that the specimens originally thought to be candidate *Monachoides incarnata* are in all probability unusually marked specimens of a different species, the brown snail *Zenobiella subrufescens*. Several specimens were collected from the RWI&PS site during the 2021 follow up survey. *Z. subrufescens* is an old woodland relic species included in the Irish non-marine mollusc red list as Vulnerable due to long term decline linked to habitat destruction. In order to preserve this species, we have put forward recommendations in Section 6 for translocation to an alternative site.
6. It should be noted that while both snails are red listed as Vulnerable, neither *Vertigo Lilljeborgi* nor *Zenobiella subrufescens* are listed in Annex II of the Habitats Directive and therefore do not benefit from legal protection.

2. Description of the site

7. This survey was completed at accessible points around the shoreline of the Parteen Basin impoundment south of Lough Derg in County Tipperary and County Clare.

8. The locations of the sites that were sampled are shown in Figure 4.

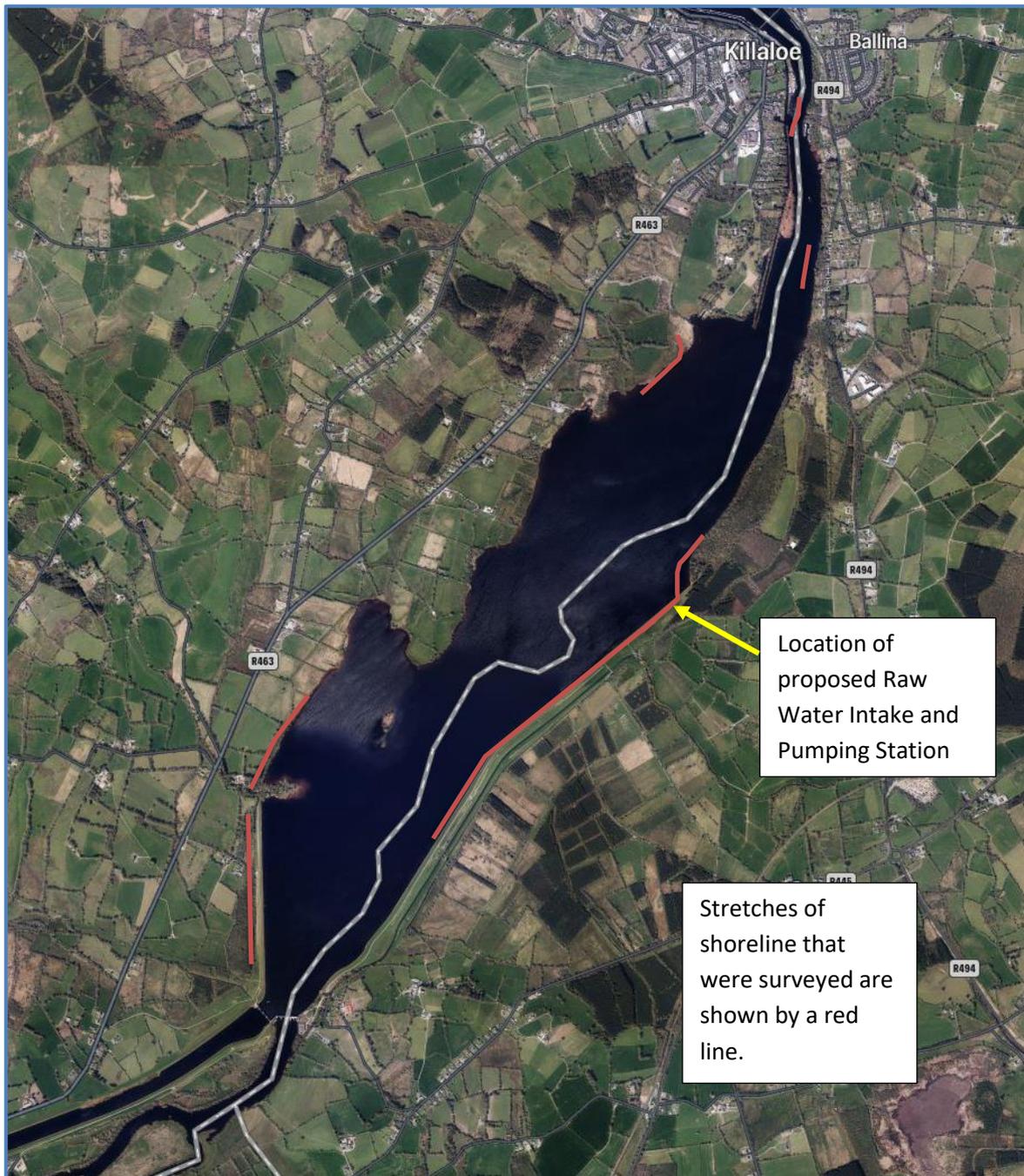


Figure 4 - Overview of Parteen Basin survey locations

9. The RWI&PS site is heavily wooded with a mix of conifers and broad-leaved trees, and is within the Lower River Shannon Special Area of Conservation (SAC). The habitat type at the abstraction point does not conform to any of the qualifying interests for the SAC.

3. Specification for the survey

10. The specification for the surveys is as follows:

- Provide a report to include:
 - Summary of the findings of the survey.

- Brief description of the site and its location.
- A list of notable species from the 2020 survey, and results of the targeted surveys completed in 2021.
- A list of target species identified during the survey with location, date, habitat and niche occupied will be included as an appendix.
- Statements on:
 - If we have been able to confirm the species of mollusc to *Monachoides incarnata*, detail what we have been able to confirm about its distribution and how the proposed development may impact upon it.
 - The distribution of *Vertigo Lilljeborgi* as we have been able to ascertain it and provide further comment on the potential for impacts in relation to the proposed development.
- For the notable species we will give our view on:
 - Is it likely to be at risk as a result of the development?
 - Possible protective measures to avoid or reduce impacts.

4. Timing of the survey and difficulties encountered

4.1 2020 survey

11. In undertaking this survey, we had planned around a relatively late start date. Fieldwork was completed on the 21st of September 2020.
12. The weather was mild and calm with no significant precipitation, i.e. suitable for entomology fieldwork.
13. The choice of taxonomic groups used in the survey was designed to mitigate as far as possible the late start in the year. Many Heteroptera (true bugs) mature into adult forms in late summer, a good selection of water beetles can be found relatively easily at any time of year as can molluscs. Snails can also be identified from empty shells which can be found year-round. During the first day of fieldwork, it became clear that diversity of Heteroptera was low and a decision was made to include Aranea (spiders) in the study to provide better information. Spiders are good habitat condition indicators and appeared reasonably numerous and diverse.

4.2 2021 survey

14. The site was visited on the 3rd to 5th of October 2021. Snails are generally more numerous and more likely to be in adult form later in the year, so an October survey date is optimal. Weather conditions were favourable for survey work of this kind with mostly dry conditions and moderate temperatures. No difficulties were encountered, other than access to some parts of the shoreline due to private ownership of adjacent land. Despite access difficulties we believe we have surveyed sufficient suitable habitat including areas that were similar in character to the proposed RWI&PS site, to be able to draw appropriate conclusions.

5. Survey methodology

15. There is no guidance specific to Ireland for conducting this type of study. Thus, broad principles set out in the document, 'Surveying Terrestrial and Freshwater Invertebrates for Conservation Evaluation (NERR005)' (Drake *et al.* 2007) were followed, tempered with extensive experience of surveying Irish habitats. The methodology was designed to provide a record of what's present on site at a point in time, rather than a standardised method that would limit discretion in what is

studied and thus give a poorer outcome overall. The survey methodology was designed to collect invertebrates from wet or flooded semi-terrestrial habitats, rather than true river or lake species. The survey in question did not require a timed methodology nor one that was specific to an individual species, as the survey documented invertebrate species found across the site.

5.1 2020 survey

16. Searching was undertaken by sweep-netting the field and shrub layers, searching through moss and grass tussocks with a tray and sieve and using a pond net in water features on the site. Robust vegetation e.g. gorse and lower branches of trees were tapped onto a white tray for inspection. Aquatic habitats were sampled by running a pond net back and forth through the water to collect invertebrates. Sweep-netting was employed extensively and involves using a lightweight net for flying insects and a heavier net for other invertebrates on stiff foliage by sweeping the net vigorously through vegetation to capture specimens. Dead rotten wood was broken up into a white tray and carefully examined, and bark lifted to expose specimens underneath.
17. Other micro-habitats were investigated when encountered including turning wood embedded stones, shoreline flotsam and inspecting the undersides.
18. Where possible specimens were identified in the field and released. Those requiring microscopic examination or identification using a key were taken away for later study.

5.2 2021 survey

19. The survey methods for the two target species were:
 - *V. Lilljeborgi*. Walk along the shoreline wearing thigh waders and:
 - Sweep net low hanging vegetation and examine the net contents in a white tray.
 - Pull up tussocks close to the waters' edge and pull apart in a sieve over a white tray.
 - Search strandline flotsam and jetsam by lifting piles of flood debris and dropping it into a sieve over a white tray.
 - Lifting pieces of wood along the shoreline and examining the underside for presence of whorl snails.
 - *M. incarnata*. Search areas of suitable woodland habitat by:
 - Sweep netting shaded field layer and lush vegetation along woodland edges and glades.
 - Break up rotten dead wood over a white tray.
 - Sieving leaf litter over a white tray.
 - Turning deeply embedded stones.

6. Discussion and Recommendations

20. This section includes brief details of notable species that were found during fieldwork from the surveys completed in 2020 and 2021 and lists actions and recommendations for protection.
21. Notable species include those that:
 - Have a conservation designation including:
 - Red listed as Endangered (EN), Critical (CR), Vulnerable (VU) or Data Deficient (DD).
 - Listing in Annex II of the Habitats Directive.
 - A British conservation status of Nationally Scarce (NS) or Nationally Rare (NR).Whilst these Great Britain status assessments are not directly transferable to Ireland they are used as a proxy to flag up species for further attention.

- Those that are otherwise rare or very local in Ireland.
- Any species that are recently adventive (have arrived in Ireland recently).
- Any non-native invasive species, or others that may indicate adverse habitat condition.

6.1 Notable species from the 2020 survey

Vertigo lilljeborgi (Westerlund, 1871) Lilljeborg's whorl snail: Mollusca: Vertiginidae (RDB VU)

22. A single shell of this rare species was swept from along the shoreline at the site of the proposed RWI&PS. It has a Red Data Book Vulnerable status.

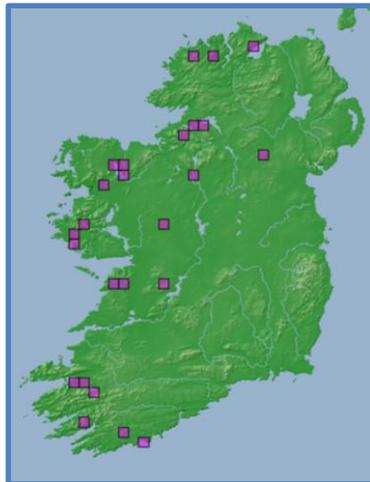


Figure 5 - Distribution of *Vertigo lilljeborgi* in Ireland (NBDC online maps)

23. Whilst the physical structure of the habitat at the RWI&PS site (stony shore) fits the expected habitat of *V. Lilljeborgi* this is nonetheless a surprising record for an artificial impoundment and is the first record from such a habitat in Ireland to the author's knowledge. The species has a marked western distribution and is normally found around the shores in flotsam and seepages/marshes adjacent to limestone lakes (Byrne, 2009), see Figure 5. The most likely explanation is that following the construction of the Ardnacrusha hydro-electric system, this species has been washed downstream during a flood event and found suitable conditions. There is just one other record of *V. lilljeborgi* from the main River Shannon channel dating back to 1993 some 150km to the north as the crow flies.
24. *V. Lilljeborgi* is illustrated in Figure 2. This species was surveyed for in the 2021 survey and was not found.

Metatropis rufescens (Herrich-Schäffer, 1835) A stilt-bug: Hemiptera; Berytidae

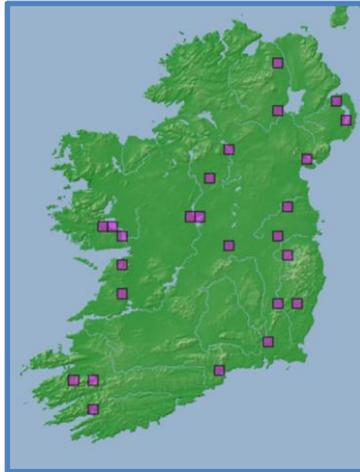


Figure 6 - Distribution of *Metatropis rufescens* in Ireland (NBDC online maps)

25. Figure 6 shows the distribution of *Metatropis rufescens* in Ireland. It is widespread but local and is confined to woodlands where its foodplant, *Circaea lutetiana* (enchanter's nightshade) is found. The Irish distribution is likely to be constrained by foodplant and habitat availability (Dr. B. Nelson pers. comm.) and is likely to be under recorded. At Parteen it was found amongst enchanter's nightshade growing along a more open area within the woodland toward the southern end of the site. This species has no conservation designations, and we do not believe attempts to capture and translocate this very delicate insect are likely to be successful.

Asthenargus paganus (Simon, 1884) (a money spider) Aranaea: Linyphidae. Nationally Scarce in GB

26. A woodland species found in both broadleaved and coniferous settings in litter and amongst bark on tree trunks. This species is reported here because it benefits from a "Nationally Scarce" (NS) conservation status (determined by presence in more than 15 and less than 100 British hectads). It seems to be more common in Ireland as there are records from 19 out of 33 Irish Counties, and in the author's experience it is encountered reasonably frequently. It is therefore not of significant conservation concern and is not considered further.

Unidentified mollusc, possibly *Monachoides incarnata* (O. F. Müller, 1774) Mollusca; Hygromiidae

27. Several empty partly formed shells of an immature snail were collected at the Raw Water Intake and Pumping Station site. They were passed to Dr. Roy Anderson for identification. Whilst a definitive identification cannot be given because the peculiar micro-sculpturing of the shell of adults of that species is only partly developed in immature specimens it appears likely to be *Monachoides incarnata*; a central European species not hitherto confirmed in Ireland or indeed Britain. Additional credence is given to that species as it was reported by a German malacologist familiar with the snail who found immature shells in 2002 some 70km upstream on the Shannon at Clonmacnoise, but despite it being searched for it has not been re-found to verify the record from adult shells. This species has no previous reliable records from Ireland or indeed Britain.
28. *M. incarnata* is reasonably common in central Europe and has a Least Concern red list status. However, upon further investigation in 2021, it was determined that the originally identified *M. incarnata* shells were that of unusually marked specimens of *Z. subrufescens* (refer to Section 6.2 for further details).

Monocephalus castaneipes (Simon, 1884) a money spider; Aranaea: Linyphidae. Nationally Scarce in GB and Biodiversity Action Plan species in GB

29. Like *Asthenargus paganus* (see above) despite having a British 'NS' conservation status, it has been recorded in 25 of 33 Irish counties. Again, in the authors experience it is reasonably frequently encountered in suitable habitat in Ireland, so regarded as of limited conservation concern at this site. This species was also found at the Water Treatment Plant site, and is not considered further.

Sepedophilus immaculatus (Stephens 1832) Coleoptera; Staphylinidae

30. Staphylinidae is a Family level sub-division within the Coleoptera (beetle) Order. It is a large group distinguished by generally having an elongate profile, small elytra and exposed abdominal tergites. Whilst this species has no Irish conservation status (red lists have not been prepared for Staphylinidae) it is undoubtedly rare. There are just four modern Irish records with this one making a fifth. It appears to be cosmopolitan in terms of its habitat preferences, and this specimen was found in a fallen pine trunk with red rot. As this species is not confined to a narrow ecological niche and the Raw Water Intake and Pumping Station site occupies a comparatively small area of habitat we do not consider the development is likely to significantly impact on the overall population.

6.2 Results from the 2021 survey of *Monachoides incarnatus* and *Zenobiella subrufescens*

31. The initial survey completed during 2020 alerted us to the possible presence of an exotic snail, *Monachoides incarnata* at the proposed RWI&PS. It is a continental species not hitherto reliably confirmed from Ireland (or indeed Britain). The shells collected in 2020 were immature specimens so could not be confirmed to species but showed external ribbing consistent with *M. incarnata*. During this survey we specifically targeted the woodland where the original putative *M. incarnata* specimens were found. We did not find any new mature *M. incarnata*, but did find the brown snail, *Zenobiella subrufescens*, a species of old woodlands, illustrated in Figure 1. Having studied those shells, we now believe that the snails originally thought to be *M. incarnata* were unusually marked specimens of *Z. subrufescens*. While it is not common to find unusually marked specimens of snails, it does occur and is likely to be a response to an environmental stress e.g. dry conditions, high temperatures etc.
32. That discovery clears up one potential issue in terms of the development but raises another. *Z. subrufescens* is a red-listed species. The entry in the red list (Byrne, 2009) is replicated in Figure 7.

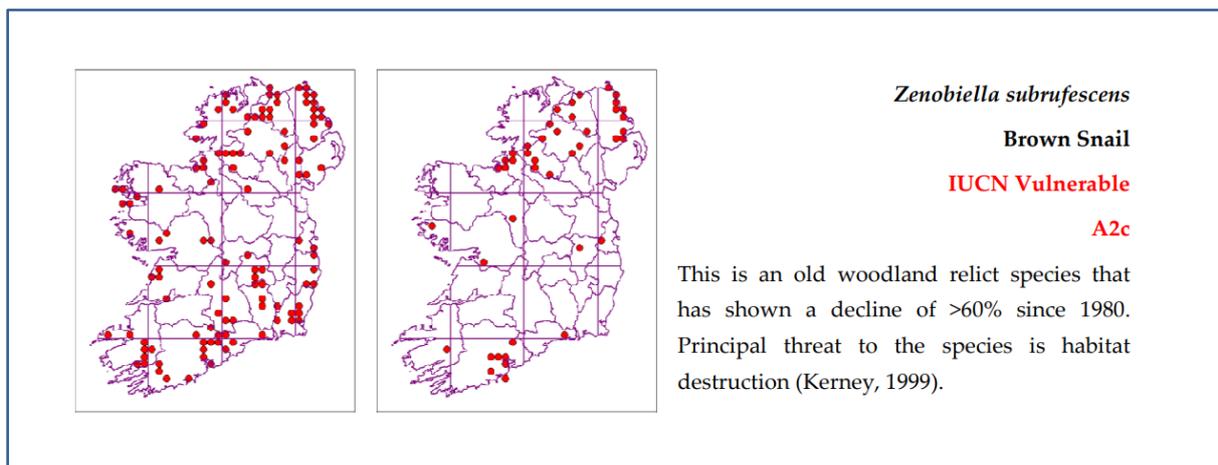


Figure 7 - Red list entry for *Zenobiella subrufescens*, pre 1980 distribution data to the left and post 1980 on the right

33. *Z. subrufescens* is red listed on the basis of significant decline in recent decades and benefits from a 'Vulnerable' status. Habitat destruction is listed as the primary driver of loss in the red list. The decline in the abundance of this species has a trend of losses in the south and east of Ireland, while remaining more abundant in the west and north. It is possible that climate change may also play a part in the ongoing decline due to higher temperatures and lower humidity (Roy Anderson pers. comm.) which the snail will not tolerate.
34. It is associated with old woodland species, but is not found under the shaded canopy within the body of the woodland at Parteen. It is frequent in lush grass and low shrubs around the margins and in open areas within the wood that have similar lush grassy vegetation.
35. The maps in the red list (Figure 7) show few other recent records of this snail within 100km of the RWI&PS site. It was not found in any of the wooded areas that were searched along the Parteen Basin shoreline as part of this work, and neither was it found during an invertebrate survey of the eastern shore of Lough Derg in 2021 completed by the author which included several woodland sites. The evidence points to this being a potentially isolated and therefore vulnerable colony. *Zenobiella subrufescens* does not benefit from the strict legal protection that would be afforded by Habitat Directive Annex II listing. To protect this potentially vulnerable population we have set out recommendation options in order to ensure no net loss consistent with principles set out in the National Biodiversity Action Plan 2017-2021.
36. Recommended protective measures consist of collecting and transferring snails to alternative suitable lakeshore habitat. As this species has a very fragile shell, snails will need to be collected by hand (rather than sweep netting) from the areas where it is present. A suitable receiving site (deciduous woodland with similar lush grassy marginal areas or woodland rides) will need to be agreed in advance. Monitoring will be needed to check for the presence of the snail prior to releasing collected specimens, and then sampling of the recipient site after 3 and 6 years to gather information on the success of the introduction.

6.2 *Vertigo lilljeborgi*

37. *Vertigo Lilljeborgi* is a tiny whorl snail (see Figure 2) that is rare in Ireland. It benefits from a red list Vulnerable status, and the red list entry is shown in Figure 8. It is red listed because of distributional decline. The snail was first recorded from this site in the 2020 survey and is more normally found around the shores of pristine upland limestone lakes in the west of Ireland. Despite extensive searching around Parteen Basin in 2021 no further specimens were located. However, it is known to be a difficult species to find, due to its secretive habits close to water low down in shoreline vegetation and strandline flotsam and jetsam. Even in optimal habitats it is usually at low density and is patchy in its occurrence.

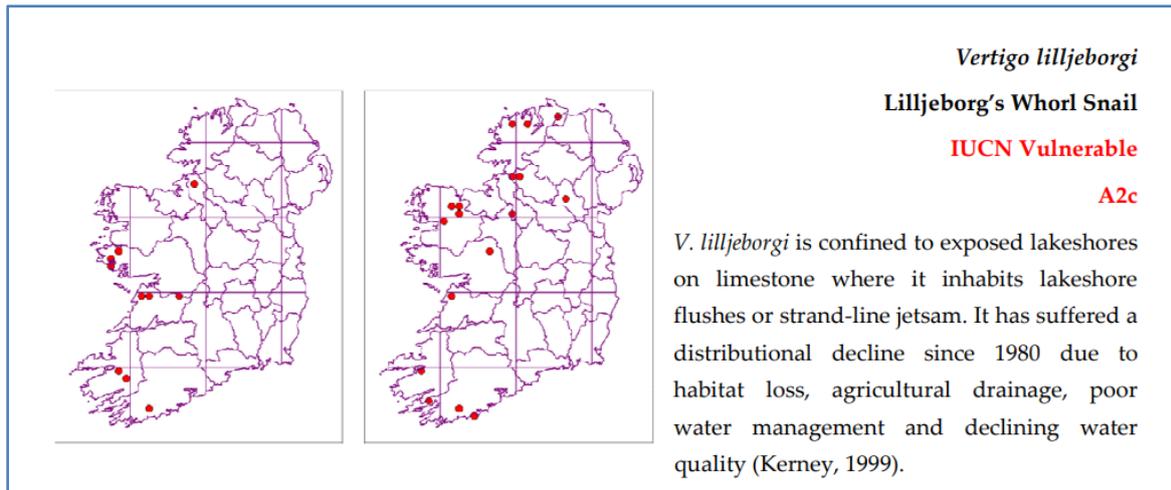


Figure 8 - Red list entry for *Vertigo lilljeborgi*

38. A nil result from searching does not mean that we can discount the 2020 find as a coincidental single one-off because of the secretive habits of this species. It does suggest that the snail is unlikely to be abundant at the proposed RWI&PS site and around the remaining shoreline. It is likely to be quite patchy in its distribution around the shore.
39. In our opinion given the extent of habitat around the Parteen (and Lough Derg) lakeshore that is similar in character to that at the proposed RWI&PS we think it is highly unlikely that the snail is confined to one small area at the site of the proposed RWI&PS. Because of that we think it highly unlikely that the development poses a significant threat to the ongoing survival of the snail around the Parteen basin.
40. *Vertigo Lilljeborgi* is not listed in Annex II of the Habitats Directive and therefore does not receive strict legal protection (similar to *Zenobiella subrufescens*); however, we propose protective measures for ameliorating the impact of the development. A thorough search of the habitat that will be impacted by development shoreline by hand searching and sweep netting is recommended to be undertaken prior to construction works commencing. Any snails found are recommended to be translocated to an alternative location with similar habitat. We do not propose ongoing monitoring of this snail due to the difficulties of finding it.

Adam Mantell – Arctia Ecology

7. Bibliography

Byrne, A. M. (2009). *Ireland Red List No. 2: Non Marine Molluscs*. NPWS.

Drake, C. M., Lott, D. A., Alexander, K. N. A., & Webb, J. (2007). Surveying Terrestrial and Freshwater Invertebrates for Conservation Evaluation. *Nat Engl Res Rep*, 5, 1-123.

Annex 1 – species list from the 2020 survey

Group	Common name	Latin name	Date	Location	Habitat	Niche	Abundance
Aranaea	Long-jawed spider	<i>Tetragnatha extensa</i>	21/09/2020	R72297042	Woodland/lake edge	Swept from along shore	1
Aranaea	Money spider	<i>Linyphia triangularis</i>	21/09/2020	R72297042	Woodland/lake edge	Swept from along shore	2
Aranaea	Comb-footed spider	<i>Amaurobius fenestralis</i>	21/09/2020	R70057018	Woodland	Red rot pine	1
Aranaea	Money spider	<i>Tenuiphantes zimmermanni</i>	21/09/2020	R70057018	Woodland	Red rot pine	1
Aranaea	Money spider	<i>Labulla thoracica</i>	21/09/2020	R70057018	Woodland	Red rot pine	1
Aranaea	Long-jawed spider	<i>Metellina segmentata</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1
Aranaea	Long-jawed spider	<i>Pachygnatha clercki</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1
Aranaea	Long-jawed spider	<i>Tetragnatha montana</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1
Aranaea	Money spider	<i>Tenuiphantes zimmermanni</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1
Aranaea	Money spider	<i>Linyphia triangularis</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	3
Aranaea	Money spider	<i>Oedothorax fuscus</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1
Aranaea	Money spider	<i>Labulla thoracica</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1
Aranaea	Money spider	<i>Asthenargus paganus</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1
Aranaea	Money spider	<i>Monocephalus castanaeipes</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1
Coleoptera	Rove beetle	<i>Stenus picipes</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1
Coleoptera	Rove beetle	<i>Stenus impressus</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	8
Coleoptera	Leaf beetle	<i>Phratora vulgatissima</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1
Coleoptera	Pale Tortoise beetle	<i>Cassida flaveola</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1
Coleoptera	Rove beetle	<i>Aegidius semiobscurus</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1
Coleoptera	Smooth glass snail	<i>Aegopinella nitidula</i>	21/09/2020	R70057018	Woodland	Red rot on pine.	5
Coleoptera	A rove beetle	<i>Habrocerus capillaricornis</i>	21/09/2020	R70057018	Woodland	Red rot on pine.	1
Coleoptera	A rove beetle	<i>Habrocerus capillaricornis</i>	21/09/2020	R700702	Lakeshore at Parteen Weir	Woodland floor.	1
Coleoptera	A rove beetle	<i>Ischnosoma splendidum</i>	21/09/2020	R700702	Lakeshore at Parteen Weir	Woodland floor.	1
Coleoptera	A rove beetle	<i>Sepedophilus immaculatus</i>	21/09/2020	R70057018	Woodland	Red rot on pine.	1
Coleoptera	A rove beetle	<i>Sepedophilus marshami</i>	21/09/2020	R70057018	Woodland	Red rot on pine.	1
Coleoptera	A rove beetle	<i>Stenus impressus</i>	21/09/2020	R700702	Lakeshore at Parteen Weir	Woodland floor.	3
Coleoptera	A rove beetle	<i>Mycetota laticollis</i>	21/09/2020	R70057018	Woodland	Red rot on pine.	1m
Coleoptera	A rove beetle	<i>Mocyta amplicollis</i>	21/09/2020	R70057018	Woodland	Red rot on pine.	1f
Coleoptera	A rove beetle	<i>Mocyta fungi</i>	21/09/2020	R70057018	Woodland	Red rot on pine.	1f
Heteroptera	Stilt-bug	<i>Metatropis rufescens</i>	21/09/2020	R700702	Woodland	Field layer	1
Isopoda	Woodlouse	<i>Oniscus asellus</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1
Mollusca	Smooth glass snail	<i>Aegopinella nitidula</i>	21/09/2020	R700702	Lakeshore at Parteen Weir.	Woodland floor.	2
Mollusca	Tree snail	<i>Balea heydeni</i>	21/09/2020	R700702	Lakeshore at Parteen Weir.	Woodland floor.	6
Mollusca	Slippery moss snail	<i>Cochlicopa lubrica</i>	21/09/2020	R700702	Lakeshore at Parteen Weir.	Swept near intake.	1 juv.
Mollusca	Garden snail	<i>Cornu aspersum</i>	21/09/2020	R700702	Lakeshore at Parteen Weir.	Swept near intake.	1 juv.
Mollusca	Incarnate snail	? <i>Monachoides incarnatus</i>	21/09/2020	R700702	Lakeshore at Parteen Weir.	Swept near intake.	5
Mollusca	Incarnate snail	? <i>Monachoides incarnatus</i>	21/09/2020	R700702	Lakeshore at Parteen Weir.	Woodland floor.	5
Mollusca	Small amber snail	<i>Oxyloma elegans</i>	21/09/2020	R700702	Lakeshore at Parteen Weir.	Swept near intake.	1 juv.
Mollusca	Lilljeborg's whorl snail	<i>Vertigo lilljeborgi</i>	21/09/2020	R700702	Lakeshore at Parteen Weir.	Swept near intake.	1
Mollusca	Iberian 3-banded slug	<i>Ambigolimax valentianus</i>	21/09/2020	R700702	Woodland	Dead wood	1
Mollusca	Netted field slug	<i>Deroceras reticulatum</i>	21/09/2020	R700702	Woodland	Dead wood	1
Opilione	Harvestman	<i>Nemastoma bimaculatum</i>	21/09/2020	R700702	Woodland	Leaf litter and field layer	1

Annex 2 - species list from the 2021 survey

Group	Common name	Latin name	Date	Location	Habitat	Niche	Abundance
Mollusca	Brown snail	<i>Zenobiella subfufescens</i>	03/10/2021	R72297042	Woodland/lake edge	Swept from along shore	Several